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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/026,806

12/27/2001

Yoshio Kishimoto

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7590

03/29/2004

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EXAMINER

PETKOVSEK, DANIEL J

ART UNIT

PAPER NUMBER

2874

DATE MAILED: 03/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/026,806	KISHIMOTO ET AL.	
	Examiner	Art Unit	
	Daniel J Petkovsek	2874	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on amendment received March 12, 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) 10-26 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6-8 is/are allowed.
- 6) ☒ Claim(s) 1-3 and 9 is/are rejected.
- 7) ☒ Claim(s) 4 and 5 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on December 27, 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>2/20/02</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This office action is in response to the amendment received March 12, 2004. In accordance with the amendment, claims 6 and 9 have been amended, while claims 10-26 have been formally canceled. Claims 1-9 are currently pending.

Information Disclosure Statement

1. The prior art documents submitted by Applicant in the Information Disclosure Statements filed on February 20, 2002, have been considered and made of record (note attached copy of forms PTO-1449).

Claim Objections

2. Claim 9 is objected to because of the following informalities: in line 5, and extra "and" remains after "said optical waveguide core", which is unnecessary after the amendment adding another limitation. Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-3 and 9 are rejected under 35 U.S.C. 102(e) as being anticipated by Lee et al. U.S.P. No. 6,690,871.

Lee et al. U.S.P. No. 6,690,871 teaches (Fig. 1, column 2 line 48 through column 3 line 18) a planar optical waveguide 100 having an optical waveguide core 101, wherein the

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quadrilateral core 101 is formed over a substrate 105, a low refractive index layer 103 (and 104 beneath) including refractive index lowering molecules is formed around the core, wherein these refractive index lowering particles are at the periphery of the core, and wherein the refractive index lowering molecules are distributed with higher concentrations toward the outer sides of the core (such as in a graded index profile created outwardly from core 101 through graded index layer 103), which clearly, fully meets Applicant's claimed limitations. Regarding claim 1, the refractive index-lowering molecules are unevenly distributed (from core to cladding), with a higher concentration occurring at the outer sides and corners of the core. Regarding claims 2 and 3, the layers sandwich the core layer, above and below having lower refractive index properties.

Allowable Subject Matter

5. Claims 6-8 are allowed. The relevant prior art does not teach or reasonably suggest the specific method step limitations as claimed (i.e. etching, doping, etc.) in order to obtain an optical waveguide device similar to that of Lee et al. '871.

6. Claims 4 and 5 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The relevant prior art does not teach or reasonably suggest the use of fluorine compatible molecules to lower the refractive-index properties.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure, with respect to the state of the art of planar waveguides: PTO-892 form references B-D.


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8. A new ground of rejection has been made to prior art (Lee et al. U.S.P. No. 6,690,871) that has been found during a refreshed search. Previously indicated allowable subject material to claims 1-3 has been withdrawn based on this new art. Accordingly, this action is made **NON-FINAL**.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J Petkovsek whose telephone number is (571) 272-2355. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on (571) 272-2344. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Daniel J Petkovsek
Examiner
Art Unit 2874

March 23, 2004


Brian Healy
Primary Examiner